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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/784,284	02/16/2001	John Ricci	1065.26 (B)	3054

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EXAMINER

BLANCO, JAVIER G

ART UNIT PAPER NUMBER

3738

DATE MAILED: 04/05/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/784,284

Applicant(s)

RICCI ET AL.

Examiner

Javier G. Blanco

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because of the following minor typographical error: “microgemoetric” instead of “microgeometric” (see line 6 of Abstract). Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claims 1, 8 and 9 are objected to because of the following informalities: typographical errors. In claim 1, “microgeometric” is not hyphenated in line 3, but hyphenated in line 8. In claim 8, line 3, “plama” is used instead of “plasma”. In claim 9, line 2, the expression “consisting hip, knee” should be written as “consisting of hip, knee”. Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Regarding claim 1, the “**preferential promotion** of the rate” renders the claim vague and indefinite. Also, the term “ordered” renders the claim vague and indefinite.

b. Regarding claim 3, the expression “includes an axis” is vague and indefinite since it is not clear if the “multiplicity” or the “first multiplicity” is the one with the axis. Also, the term “major

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axis” is vague and indefinite since it is not specified which “major axis” is that (i.e., longitudinal). Further, an “orthonormal matrix” was not described in the specification.

c. Claim 4 recites the limitation “major axis of said first multiplicity” in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

d. Regarding claim 8, the expression “a surface of said implant element comprises a coating selected from the group of surfaces” is confusing and renders the claim vague and indefinite.

e. Regarding claim 10, the “group consisting of bone and soft tissue **anchors**” was not described in the specification.

f. Regarding claim 11, the expression “comprises a product of the process” renders the claim vague and indefinite since it is not clear if by “product” it is referred to the geometric pattern, or, a part (area or component) of the geometric pattern.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

6. Claims 1, 5, 8, 9, 10, and 11 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Branemark et al. (US 4,330,891). Branemark et al. disclose an element with a micro-pitted surface for growing tissue of a particular type. The pits or indentations have a cross-sectional configuration that is related to the size of a particular cell type in that the diameter is preferably no larger than the cell diameter of the application of use (see column 2, lines 37-44; 1000 nm= 1 micron). Column 5, lines 67-68 and column 6, lines 1-2, disclose some of those applications (i.e., joints) including hard bone tissue as well as soft tissue. The Abstract also discloses the element being extremely suitable as anchoring devices for a prosthesis and "may be made integral therewith". The base material of said implant consists of titanium and alloys thereof (see column 3, lines 55-61). A surface of the micro-pitted surface comprises a coating or "deposit of an agent facilitating and/or accelerating the growing process on or in the element" (see Abstract). The micro-pitted surface may be produced by mechanical etching (i.e., with a cutting tool; see column 4, lines 20-23).

7. Claims 1-13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Naiman et al. (US 5,607,607). Naiman et al. disclose an orthopedic implant comprising an implant element with a surface pattern as claimed in claims 1-13 (see Figures 4A-4H, 5A-5F, 6A-6E, 7A, 8, and 11; see whole text).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 5-7, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al. (US 4,778,469) in view of Mears (US 4,553,272). Lin et al. disclose the claimed invention except for any mention on the width or depth range of the ridges and/or grooves present in the surface pattern (repeat pattern 14) of the implant element (plate 10; see Figures 1-8; column 2, lines 36-60; column 3, lines 5-9, lines 13-15, and lines 53-63). However Mears teaches pores (i.e., grooves) sizes of about 25 microns in order to harbor cells and promote tissue growth or regeneration (see Figures 1-3; column 3, lines 48-59; column 4, lines 34-47; column 5, lines 34-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have combined the teaching of using pores/grooves sizes of about 25 microns, as taught by Mears, to the surface pattern of the implant element of Lin et al., in order to harbor cells and promote tissue growth or regeneration.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Van Kampen et al. (US 4,608,052), Lundgren (US 4,752,294), Picha (US 5,002,572), Ahrens et al. (US 5,108,434), and Bugle et al. (US 5,246,530).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javier G. Blanco whose telephone number is 703-605-4259. The examiner can normally be reached on M-F (7:30 a.m.-4:00 p.m.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Corrine McDermott can be reached on 703-308-2111. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



JGB

April 4, 2002



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